# SANTA CRUZ BIOTECHNOLOGY, INC.

# PSMD5 (D-11): sc-390751



## BACKGROUND

In eukaryotic cells, selective breakdown of cellular proteins is ensured by their ubiquitination and subsequent degradation by the 26S Proteasome. The 26S Proteasome is a protease complex that selectively breaks down proteins that have been modified by polyubiquitin chains. It is made up of two multisubunit complexes: the 20S Proteasome chamber, which serves as the proteolytic core of the complex and two 19S regulatory particles which recognize and unfold ubiquitinated proteins. PSMD5 (proteasome (prosome, macropain) 26S sub-unit, non-ATPase 5), also known as S5B (S5 basic), is a regulatory component of the 26S Proteasome. More specifically, PSMD5 is a subunit of the 19S regulator base and associates in a heterotrimer with PSMC1 and PSMC2. It contains nine di-leucine repeats and a motif similar to the tyrosine-based motif, suggesting a role for PSMD5 in trafficking, targeting and/or internalization.

## REFERENCES

- 1. Deveraux, Q., et al. 1994. A 26 S protease subunit that binds ubiquitin conjugates. J. Biol. Chem. 269: 7059-7061.
- 2. Nomura, N., et al. 1994. Prediction of the coding sequences of unidentified human genes. II. The coding sequences of 40 new genes (KIAA0041-KIAA0080) deduced by analysis of cDNA clones from human cell line KG-1. DNA Res. 1: 223-229.
- Deveraux, Q., et al. 1995. Molecular cloning and expression of a 26S protease subunit enriched in dileucine repeats. J. Biol. Chem. 270: 23726-23729.
- 4. Gorbea, C., et al. 2000. Mapping subunit contacts in the regulatory complex of the 26 S proteasome. S2 and S5b form a tetramer with ATPase subunits S4 and S7. J. Biol. Chem. 275: 875-882.
- Lier, S. and Paululat, A. 2002. The proteasome regulatory particle subunit Rpn6 is required for *Drosophila* development and interacts physically with signalosome subunit Alien/CSN2. Gene 298: 109-119.

#### **CHROMOSOMAL LOCATION**

Genetic locus: PSMD5 (human) mapping to 9q33.2; Psmd5 (mouse) mapping to 2 B.

## SOURCE

PSMD5 (D-11) is a mouse monoclonal antibody raised against amino acids 205-504 mapping at the C-terminus of PSMD5 of human origin.

# PRODUCT

Each vial contains 200  $\mu g$  lgG\_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PSMD5 (D-11) is available conjugated to agarose (sc-390751 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390751 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390751 PE), fluorescein (sc-390751 FITC), Alexa Fluor<sup>®</sup> 488 (sc-390751 AF488), Alexa Fluor<sup>®</sup> 546 (sc-390751 AF546), Alexa Fluor<sup>®</sup> 594 (sc-390751 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-390751 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-390751 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-390751 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

# APPLICATIONS

PSMD5 (D-11) is recommended for detection of PSMD5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PSMD5 siRNA (h): sc-92791, PSMD5 siRNA (m): sc-152561, PSMD5 shRNA Plasmid (h): sc-92791-SH, PSMD5 shRNA Plasmid (m): sc-152561-SH, PSMD5 shRNA (h) Lentiviral Particles: sc-92791-V and PSMD5 shRNA (m) Lentiviral Particles: sc-152561-V.

Molecular Weight of PSMD5: 50 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, RT-4 whole cell lysate: sc-364257 or U-251-MG whole cell lysate: sc-364176.

## **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG K BP-HRP: sc-516102 or m-lgG K BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-lgG K BP-FITC: sc-516140 or m-lgG K BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

### DATA

55 K –	A	В	С	D	E	
43 K –	-	-	-	-	-	<₩PSMD5
34 K –						
SMD5 (D-11): sc-390751 Western blot analysis						

of PSMD5 expression in A-431 (**A**), RT-4 (**B**) and U-251-MG (**C**) whole cell lysates and human liver (**D**) and human tonsil (**E**) tissue extracts.

## **STORAGE**

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

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